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Malcolm Mohead
Fisheries Biologist
Office of Protected Resources (F/PR)
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Re: File # 17095—Research/Enhancement Permit Pursuant to Section 10(a)(1)(A)

Dear Biologist Mohead,

On behalf of Entergy Nuclear Operations, Inc., Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Indian Point 3, LLC (collectively, "Entergy"), please accept the referenced application for a Permit to Take Protected Species for Scientific Purposes (Research/Enhancement) pursuant to Section 10(a)(1)(A) of the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531-1544. The application has been filed on the National Marine Fisheries Service's ("NMFS") Authorizations and Permits for Protected Species ("APPS") online form. Due to APPS system space constraints, certain information was unable to be included in the online application. Attached here for your complete review is the following additional information.

- Attachment A, Hudson River Biological Monitoring Program Field Schedule and Gear Specifications for 2012-2017

- Attachment B-1, Hudson River Monitoring Program 2011 Ichthyoplankton Survey Standard Operating Procedures, March 2011

- Attachment B-2, Hudson River Biological Monitoring Program 2010 Fall Juvenile and Beach Seine Surveys Standard Operating Procedures, March 2011

- Attachment B-3, Hudson River Biological Monitoring Program Striped Bass and Atlantic Tomcod Surveys Standard Operating Procedures, November 2011

- Attachment C, Hudson River Biological Monitoring Program Summary of Shortnose Sturgeon Take by Life State and Collection/Handling Data

- Attachment D, Hudson River Biological Monitoring Program Length, Weight and Condition Data for Shortnose Sturgeon Collected During Ichthyoplankton, Fall Juvenile and Striped Bass Surveys

- Attachment E, Hudson River Biological Monitoring Program NMFS-ESA Scientific Research Permit Personnel

- Attachment F, Hudson River Biological Monitoring Program Literature Cited

- Attachment G, Publications Resulting From the Hudson River Biological Monitoring Program

- Attachment H, Supplemental Permit Application Answers

The application seeks authorization for the take of the ESA-listed species shortnose sturgeon (*Acipenser brevirostrum*)("SNS") to allow the Hudson River Biological Monitoring Program ("HRBMP") to continue, as it has since 1974, authorizing ongoing icthyoplankton, juvenile and adult fish surveys of the 152 mile stretch of the Hudson River. As the attached application explains, the Hudson River electric generating companies ("Generators"), including the applicant, conduct the HRBMP as a condition of their State Pollution Discharge Elimination System ("SPDES") permits, as approved and overseen by the New York State Department of Environmental Conservation ("NYSDEC"). Without a permit authorizing the take of SNS, the applicant will not be able to continue to conduct the HRBMP, putting at risk an ecological dataset widely considered to be the most comprehensive abundance information available.

At the request of the NMFS and subject to an express reservation of rights, an enclosure to this letter also provides information on the status of Hudson River Atlantic sturgeon (*Acipenser oxyrinchus*), which NMFS proposed to list as endangered under the ESA on October 6, 2010, but has yet to take final action. *See* 75 Federal Register 61904 (Oct. 10, 2010). Should NMFS move forward with the listing of Atlantic sturgeon, Entergy will submit an application for a permit, or supplement to this permit, seeking authorization for the take of Atlantic sturgeon as may occur during the HRBMP. As explained herein, Entergy does not expect that HRBMP interactions

with, or impacts on, Atlantic sturgeon will materially differ from its interactions and impacts on SNS.

Entergy reserves it right to respond to NMFS in the future, should NMFS list the Atlantic sturgeon as endangered under the ESA.

If you require additional information or have any questions, please contact Elise Zoli at (617) 570-1612.

Sincerely,

Elise N. Zoli (CB)

Elise N. Zoli

Status of Atlantic sturgeon

Data from a variety of sources indicates that the abundance of Hudson River Atlantic sturgeon has experienced persistent, inappropriate fishing pressure and, likely, overfishing, although information is limited and inconsistent. Dovel and Berggren (1983) estimated that 14,500-36,000 age-1 Atlantic sturgeon were present in the Hudson in 1977. Peterson et al. (2000) estimated that 4,600 age-0 Atlantic sturgeon were present in the Hudson in 1994. The only available estimate of spawner abundance is from Kahnle et al. (2007), who estimated that an average of 870 Atlantic sturgeon (270 females and 600 males) spawned each year from 1985-1995. Since Atlantic sturgeon females are believed to spawn every 2-5 years, this implies a total population of adult females of 540-1350 fish.

The National Marine Fisheries Service ("NMFS") has proposed listing of the New York Bight Distinct Population Segment ("DPS") of Atlantic sturgeon as endangered (NMFS 2010). The New York Bight DPS includes at least a portion of the Hudson River population of Atlantic sturgeon. This action was taken because the NMFS' Atlantic Sturgeon Status Review Team ("ASSRT") concluded that the New York Bight DPS was at risk due to one or more of the five broadly stated factors identified in section 4(a) of the Endangered Species Act: (1) the present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms, or (5) other natural or manmade factors affecting its continued existence.

While the factors are broad, NMFS has reached specific determinations, all pointing to fishing pressure. In evaluating threats to Atlantic sturgeon populations within the DPS, NMFS first noted that access to historic spawning habitat for Atlantic sturgeon in the Hudson River is unimpeded, because the most downriver dam (the Federal Dam at Troy, RM 152) on the Hudson is well upriver from this habitat. Further, NMFS observed that most of the habitat utilized by Atlantic sturgeon in the Hudson River is undisturbed by dredging and, at least since the 1970s, has unimpaired water quality. NMFS also concluded that disease and predation are not presently significant threats to Atlantic sturgeon populations, and that these populations had not been overutilized as a result of educational or scientific research activities. Rather, NMFS concluded that overutilization for commercial purposes was likely the primary factor in the historical decline of sturgeon populations in the New York Bight, and that inability to control continued bycatch of Atlantic sturgeon in fisheries directed at other species continues to be a threat to these populations.

A conclusion that overfishing is the primary cause of decline of the Hudson River population is well-supported by previous scientific publications and agency stock assessments. Dovel (1979) recommended that fishing should be permitted only on fish older than 11 years, so that females would have an opportunity to spawn at least once before becoming vulnerable to the fishery. Young et al. (1988) concluded that the minimum length limit for Atlantic sturgeon harvested from the Hudson River should be increased at least to 72 inches. Despite these several, consistent scientific recommendations, the New York State Department of Environmental Conservation ("NYSDEC") maintained a minimum length limit of 48 inches, with no harvest quota, from 1970 to 1990. Harvests of Atlantic sturgeon in New York waters grew to an average of 40,000 pounds per year from 1984-1987, after which the fishery collapsed (ASMFC 1990). In

1990, the Atlantic State Marine Fisheries Commission ("ASMFC") stepped in, adopting a Fishery Management Plan (ASMFC 1990) calling for all member states to take one of the following actions:

- Establish a 7-ft (84 in.) length limit
- Enact a moratorium on all harvesting of Atlantic sturgeon, or
- Propose an alternative regulation "conservation-equivalent" to a 7-ft length limit.

In 1992, NYSDEC declined a moratorium, instead submitting an alternative regulation that it claimed was the "conservation-equivalent" to a 7-ft (84 inch) limit. NYSDEC's alternative proposal was to raise the length limit for both the Hudson River and marine fisheries to 60 inches, and to establish a target harvest level of 8.1 metric tons ("MT") for the combined fishery. NYSDEC regulated the New York Atlantic sturgeon fishery from 1993- 1995, using the regulations proposed in 1992, but abandoned the regulations in 1996 and imposed the moratorium requested by NMFS in 1990. During the period from 1990-1992, it is estimated that approximately 93% of all U.S. landings of Atlantic sturgeon occurred in New York and New Jersey (Smith & Clugston, 1997).

The 1998 ASMFC Atlantic sturgeon stock assessment (ASMFC 1998b) found that the NYSDEC-proposed 8.1 MT harvest limit was substantially exceeded during all three years. Moreover, the New Jersey landings of Atlantic sturgeon, (presumed to originate in the Hudson) were twice as high as the New York landings. During the 3 years from 1993-1995, New York and New Jersey continued to account for the majority of landings - nearly 80% of all coastwide landings of Atlantic sturgeon. Most of the fish harvested were 10-12 years old, and mostly sexually immature. The 1998 stock assessment concluded that the Hudson River Atlantic sturgeon population had been overfished over the period 1990-1995, and that fishing likely was responsible for the decline in production of young Atlantic sturgeon that began in the late 1980s. In 1998, the ASMFC amended the Fishery Management Plan ("FMP") for Atlantic sturgeon to require a coastwide moratorium (ASMFC 1998a).

As explained in materials included with this application, there is no credible support for the conclusion that the HRBMP adversely effects Atlantic sturgeon. Rather, as noted above, the overwhelming evidence is that unregulated fishing is the source of the population decline.

References

Atlantic States Marine Fisheries Commission (ASMFC). 1998a. Amendment 1 to the Interstate Fishery Management Plan for Atlantic Sturgeon. Fishery Management Report No. 31:1-60. Washington, D.C.

Atlantic States Marine Fisheries Commission (ASMFC). 1998b. Atlantic sturgeon stock assessment: peer review report. March, 1998. Washington, D. C.

Atlantic States Marine Fisheries Commission (ASMFC). 1990. Fishery Management Plan for Atlantic Sturgeon. Fisheries Management Report 17. Washington, D.C.

Dovel, W.L. and T.J. Berggren. 1983. Atlantic sturgeon of the Hudson River estuary, New York, NY. *Fish Game J.* 30(2): 140-72.

Dovel, W.L. 1979. The biology and management of shortnose and Atlantic sturgeon of the Hudson River. Final Report to the New York State Department of Environmental Conservation, Albany, New York.

Kahnle, A.W., K.A. Hattala, and K.A. McKown. 2007. Status of Atlantic sturgeon of the Hudson River estuary, New York, USA. Page 347-363 *in* J. Munro, D. Hatin, J.E. High-tower, K.A. McKown, K.J. Sulak, A.W. Kahnle, and F. Caron (eds). Anadromous sturgeons: habitats, threats and management. American Fisheries Society, Symposium 56, Bethesda, Maryland.

National Marine Fisheries Service (NMFS). 2010. Proposed Listing Determinations for Three Distinct Population Segments of Atlantic Sturgeon in the Northeast Region, Proposed Rule, 75 Fed. Reg. 61872 (Oct. 6, 2010).

Peterson, D. L., M. B. Bain, and N. Haley. 2000. Evidence of declining recruitment of Atlantic sturgeon in the Hudson River. *North American Journal of Fisheries Management* 20:231-238.

Smith, T.I.J. and J.P. Clugston. 1997. Status and management of Atlantic sturgeon, *Acipenser oxyrinchus,* in North America. *Environmental Biology of Fishes 48:335-346.*

Young, J.R., T.B. Hoff, W.P. Dey & J.G. Hoff. 1988. Management recommendations for a Hudson River Atlantic sturgeon fishery based on an age-structured population model 353- 365 *in* C.L. Smith (ed.). Fisheries Research in the Hudson River. State Univ. New York Press, Albany, New York.